

Fraction Division Quest

Divide unit fractions and whole numbers in real situations.

GRADE 5 • NY-5.NF.7.c

NY-5.NF.7.c "Solve real-world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions."

NAME _____

DATE _____

THE BIG IDEA

To divide a unit fraction by a whole number, multiply the fraction's denominator by the whole number. To divide a whole number by a unit fraction, multiply the whole number by the fraction's denominator.

WORKED EXAMPLE

Find $1/11 \div 7$.

1. Start with $1/11$.
2. Split $1/11$ into 7 equal parts.
3. Multiply $11 \times 7 = 77$, so each part is $1/77$.

Answer: $1/77$

PRACTICE 6 problems

1 Find $1/2 \div 3$.

ANSWER _____

2 Find $1/4 \div 5$.

ANSWER _____

3 Find $1/6 \div 8$.

ANSWER _____

4 Find $2 \div 1/3$.

ANSWER _____

5 Find $5 \div 1/4$.

ANSWER _____

6 Find $9 \div 1/2$.

ANSWER _____

APPLY IT Show your work

- 1** Maya has $\frac{1}{5}$ kilogram of clay left. She divides the clay equally among 4 small projects. How many kilograms of clay does each project get?

WORK SPACE

ANSWER _____

- 2** A gaming club has 6 meters of cable. Each controller needs $\frac{1}{3}$ meter of cable. How many controllers can get cable?

WORK SPACE

ANSWER _____

CHALLENGE One step up

The school garden has 8 liters of water for seedlings. The water is poured into containers that each hold $\frac{1}{4}$ liter. Then the containers are shared equally between 2 classes. How many containers does each class get? Show your steps.

WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Find $1/2 \div 3$.	1/6
2	Find $1/4 \div 5$.	1/20
3	Find $1/6 \div 8$.	1/48
4	Find $2 \div 1/3$.	6
5	Find $5 \div 1/4$.	20
6	Find $9 \div 1/2$.	18

PART 2 • APPLY IT

1. **1/20 kilogram** Divide the unit fraction by 4: $1/5 \div 4 = 1/20$.
2. **18 controllers** Find how many $1/3$ -meter lengths are in 6 meters: $6 \div 1/3 = 18$.

CHALLENGE

16 containers per class

Accept equivalent fraction forms when they are correct, although the listed fraction answers are simplified. For word problems, accept answers with correct units and a correct final count.